



Version:

Serial No.: _____

Production Date: _____ FWB-5733

USER'S MANUAL

COMPUTERIZED TRUCK WHEEL BALANCER



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1. PREFACE

WARNING

On the condition that confirm the operation of the machine including the operation system, tools and accessories operated properly and/or without being damaged, you can have some period limit of the guarantee during which the manufacturer will repair and change the fault parts of the machine or the machine itself free of charge. But to the faults of wear or damage caused by the improper use or transportation or the maintenance undone, the producer will not bear any responsibility. The manufacturer will not notify the customer if she has made the modification on the products of improvement on the production line.

INTRODUCTION

The aim of this manual is to provide the owner of the machine and the operator with a series of instruction on the safety and practice for operating and maintaining the wheel balancer.

If you carefully comply with this instruction manual, the machine will give you the service of high efficiency and endurance.

The following paragraphs will supply you with the danger level related to the machine.



Can cause the direct dangerous of severe injuries or death.



Can cause the dangerous of severe injuries or death or operation unsafe.

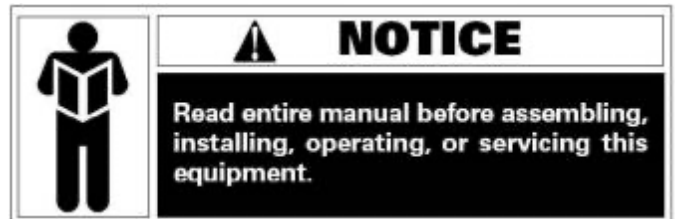


Can cause the dangerous of slight injuries or damage to the subject and operation unsafe.

Carefully read the instruction before use the machine. Keep the instruction manual in the folder need the operation area for the operator to check at any time.

Technical document is the component of the machine and has been placed together with the machine when it is sold to the new owner.

It is considered to be effective when the series number and the model in the manual are same to the ones on the nameplate.



You must keep the instruction and information in this manual in mind and comply with them. The operator will be responsible for the operation unmentioned in the manual.

Note:

Some instructions are taken out from the pictures and original figures, therefore, they will be somewhat different from the standard machines.

These instructions are applied to call for the notice of the personnel with some basic mechanical skills. So we concentrate these instructions by omit the detailed descriptions such as how to loose of tight the fix device. Do not try the other operation besides under the guide of the experienced person. If necessary, please contact the authorized service center for help.

INSTALLATION REQUIREMENT



Detach the package, lift and install the machine in accordance with the following instruction.

It will damage the machine or endanger the safety of the operator.

Detach the original package of the machine according to the package position pointed.



The choice of the installation site of the machine must comply with the current safety regulation.

Especially, the installation and operation of the machine must have the protective to moisture-resistance.

IMPORTANT: Correct and safe use of the machine, the min. luminosity of the machine must be at least 300lux

The use condition requirement:

- RH: 30%~80% (without condensation);
- Temperature range: 0°~+55°C.



The floor to fix the machine is solid enough to support the max. load of the machine.



The machine cannot be used in the exploded environment.

The package of the machine is separate package and the assembly will be in accordance to the following methods described.

ELECTRICAL CONNECT



Any electrical connect to the machine will be only executed by the qualified personnel and should be in accordance with the current regulation.

Any electrical connect should be in accordance with:

- Power on the nameplate of the machine;

- Voltage drop will not exceed 4% of the rated voltage specified on the nameplate when full load. It is 10% when start up.

User must:

- Install the plug: Connect the plug with the corresponding specification according to the voltage label and ensure the power source parameter is the same.
- Electrical connect to the machine : Install the suitable electrical current circuit breaker.
- Install power cable fuse.
- Provide the effective workshop electrical installation.
- Avoid the prohibited machine operation. Pull out the power plug to extend the life of the machine when the machine is not in use or it is in the state of switch off.

If the machine directly connected with the power source through the power board. It should be operated by the qualified person if without using the plug.



Perfect earth is necessary for the correct operation of the machine. Do not connect the earth with the pipe line, water pipe, telephone cable and the other improper objects.

SAFETY REGULATION



It will cause the serious injuries to the operators and the other persons if not in accordance to the regulation.

You can only operate the machine when completely read and understand the entire danger/warning hints.

The correct use of the machine needs the professional authorized operator who must have got the appropriate training and can understand the instruction manual of the factory, familiar to the safety regulation and cannot drink

and smoke to avoid the influence on the physiological and mental.

The following conditions are necessary:

- Read and understand the info and instruction in the manual;
- Completely know the characteristic and feature of the machine;
- Keep the unauthorized person far from the operation area;
- Secure the installation of the machine in accordance with the relative standard and regulation;
- Secure all the machine operators have been trained and can correctly and safety use the machine and under the enough monitoring in the process of operation.;
- Before confirm the power off, do not touch the cable or motor or any part in the electrical equipment;
- Carefully read the manual and know how to correctly and safely use the machine;
- Always refer to the manual.



- Do not remove or abrade any label of the warning and instruction on the danger or replace the label missing or fuzzy. You must get the label from your nearest dealer if any label is missing or damaged.
- Check the use and the relative accident defensive regulation of the standard and the high-voltage and rotation parts.
- The manufacturer will not be responsible for the damage and accident from the unauthorized changes or modification.



In the work and maintenance, you should always tie up the hair and do not wear the loosen clothing, necktie and watch or the others can be gripped into the movable parts.

2. BRIEF INTRODUCTION OF THE WHEEL BALANCER

2.1 PURPOSE OF THE DESIGN

This microcomputer control, digital display, high-performance balancer can balance car tyre, small passenger car tyre and light truck tyre. And also it is designed for balancing super truck and passenger car tyre, that up to 105kg. ALU mode make us balance the various appearances of the aluminum alloy tire.

2.2 MEANING OF THE LABEL (INCLUDING THE INDICATED INSTRUCTION)



Light

This label is at the rear of the machine to indicate that there is the plug of the power cable and the operator should care about the personal safety.



Rotation part

This label is near the balance shaft and hint the operator that this is a rotation part which is dangerous and should not use your hand to touch it. The indication of the arrow is the direction of the rotation.



Grounding

This symbol is located on the left rear to indicate where to connect the earth wire.

2.3 CHARACTERISTIC AND PERFORMANCE

- Apply the central synthesis signal manage system with the characteristic of high intelligent and long life.
- Main shaft adopts the high quality bearing with the characteristic of low noise and high precision.
- Advanced computer instructive system
- Automatic brake
- Sop button used to immediately stop the spin of the tire
- Side bracket
- Weight tray
- The use of the balance mode
- ◇ Standard – Dynamic (two sides of the tire)
- ◇ ALU – to balance the alloy rim;
- ◇ Static – one side
- General application
- ◇ Self-calibration
- ◇ Service
- ◇ Diagnose

2.4 TECHNICAL DATA

2.4.1 TECHNICAL DATA OF THE BALANCER

No	Item	Technical Data	Note
1	Kind for rim	Alu, steel and alloy rim	
2	Balancing class	Super truck and passenger tyre	
3	Balancing mode	Dynamic, static, and three ALU modes	
4	Driven	Electrical	
5	Power supply	According to the requirement of customer	
6	Weight type	Standard	Adapt different style
7	Inside/outside measure	Standard	Adapt every model
8	The machine start when low down the cover	Semi-automatic	Low down the cover, and press the START button
9	Quick nut with handle	Standard	
10	Caliper/weight/handle	Standard	
11	mm/inch conversion	Standard	
12	g/ounce conversion	Standard	
13	Calibration	Standard	
14	Self-diagnose/Err-	Standard	
15	Wheel lifter	Used for truck tyre	Car balancer not use this
16	Brake	Automatic/Manual	
17	Handle control brake	YES	Display on CPU
18	Display cover	Packed separately	
19	Display panel	LED	
20	Distance setting	Manual	
21	Cone	5	Can choose by customer
22	Balancing time	7s (16" standard rim)	Relative to wheel weight
23	Max. balancing speed	230r/min	Relative to wheel weight

No	Item	Technical Data	Note
24	Balancing precision	≤3g	
25	Max. wheel width	20"	
26	Max. wheel diameter	47"	
27	Max. rim size	10"~28"	
28	Max.rim width	1.5"~20"	
29	Max. wheel weight	≤ 200kg	
30	Dimension (after packing)	1320x950x1180 (LxWxH)	
31	Machine weight	232kg	Include wheel lifter
32	Temperature	5~40℃	
33	Humidity	≤50%@ 40℃ - -90% at 20℃	
34	Noise	≤70dB	
35	Resistance	≥20MΩ	
36	Power	About 600W	

2.4.2 TECHNICAL DATA OF THE WHEEL LIFTER

- ◇ **Working range:** 0.1~0.8MPa (0.5~0.8Mpa in normal working)
- ◇ **Precision:** 0.01MPa
- ◇ **Air supply:** this machine is not equipped air supply, the customer need to equip the air supply themselves, it should be control within0.6~0.9Mpa, then adjust to below 0.8Mpa by the valve on the lifter, the air supply should have filter, the precision should 5μm ; medium flux >0.15m3/min, temperate 5~60℃. The lifter equipped with quick union, Φ8 (inside) hose should be used to connect with the air supply, then tighten it by caliper.
- ◇ **Working condition:** according to the demand for the balancer
- ◇ **Net weight:** 50Kg
- ◇ **Dimension:** 1129×1190×728mm (LXWXH)

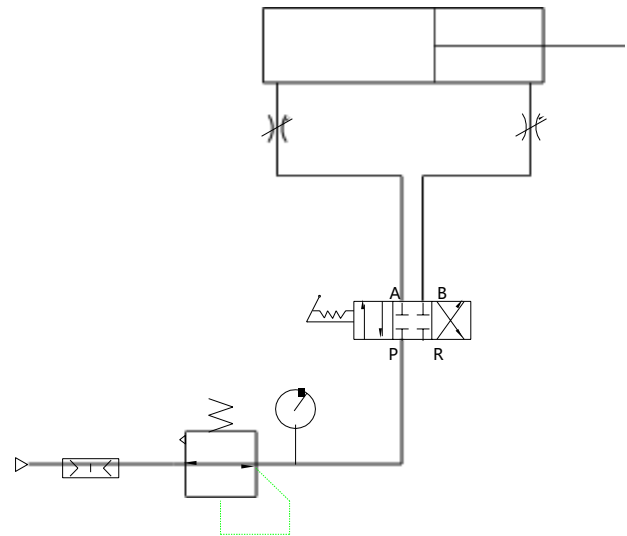
◇ Unit conversion

1Mpa=10Bar

1Bar=14.5Psi

1Bar≈1Kg/cm2

2.4.3 PNEUMATIC DIAGRAM OF THE WHEEL LIFTER



3. GENERAL CONDITION OF USE

The wheel balancer in this manual is specially used to measure the unbalance value and unbalance position. The range of the measurement see the part of the technical data.



Any instruction not specified in the manual is considered to be inappropriate and unreasonable operation.



Do not start the machine without the tire lock facility.



Do not use the machine and touch the safety device without the hood.



Do not use the compressed are and the water spray pipe to clean the tire mounted on the machine.



During work, we suggest you had better not use the original parts and equipments



The best solutions to understand your machine to secure your machine to have the top performance and avoid the occurrence of the accident:

- Secure the operator understand the machine and know the performance and the position of the entire control devices.
- Carefully check if the entire control devices of the machine is normal or not.
- The installation of the machine must be appropriate and the operation is correct and periodically maintenance to avoid the damage and accident.

Note the following issues:

- Do not detach the wheel balancer by yourselves.
- Do not collide the rotation part of the shaft.



- You should wait for 5seconds to restart after power off.

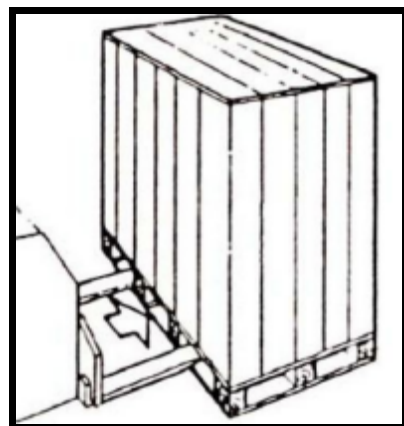
- Do not place too many heavy objects on the wheel balancers.
- If you hear the strange voice and see the smoke or any other problems, power off and pull out the plug and notify the technicians assist.
- The wheel balancer cannot be used for the other purposes not specified in the manual.

4. TRANSPORTATION AND INSTALLATION

4.1 TRANSPORTATION

- Be careful when transport and unpack the machine, to avoid the damage of the machine.
- Check if the machine is damage or not during the transport, and make the record for the problem, then show them to the carrier, and make the record on the document.
- Check the structure for the machine, to see if the data on the machine's nameplate and motor's nameplate is the same as demand, if have doubt, Reflect it quick, so that can make the resolution for this in time.
- All the work about electricity and adjustment must be operated by the authorized person.

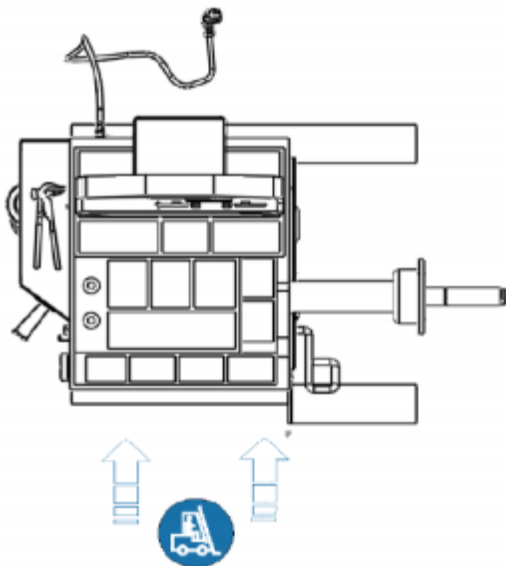
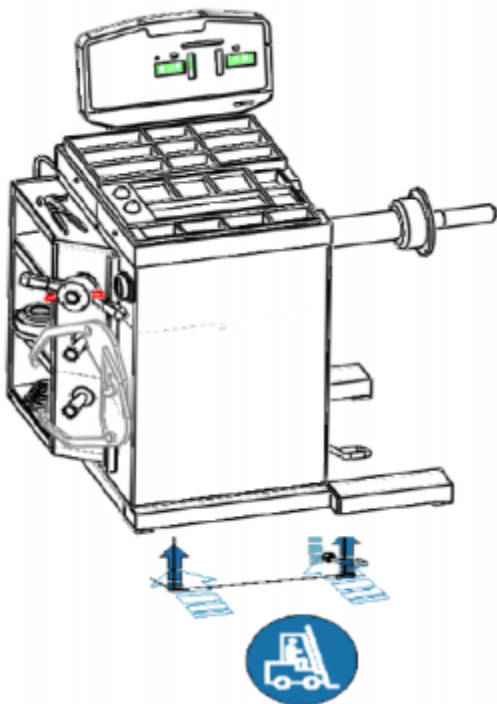
Wheel balancer must be transported by the original package and place according to the position indicated on the package box and carried by the forklift with the corresponding lift capacity. The insert direction of the forklift must be in accordance to the direction in the picture.



4.2 DEPACKING

- Open the protective cartoon or wood cartoon or the plastic bag and check the machine is complete or not and if the spare parts is missing or not.
- Remove the anchor bolt and detach the wheel balancer but we cannot carry the mail shaft of the wheel balancer.
- If you have any question, do not use the machine and contact with the supplier at once.

Transport and move the machine in the direction of the figure.



Note:

- *Do not install the machine in the area too hot or too cold and avoid placing the machine near the heater, cock, air humidity device or the oven.*
- *Do not place the machine close to the window to avoid the direct sunlight. If installed by the window, you should equip the shield to cover the machine such as curtain.*
- *Keep the machine from the chemicals such as dust, ammonia, alcohol, thinner, power and adhesive etc.*
- *Do not install the machine near the equipments can produce the vibration and the air compressor.*
- *In the process of operation, except the operator, any other person can not close the machine in using.*
- *Dynamic wheel balancer must use the separate rated power source and connect with any other electrical equipment to the socket. If without the reliable earth power source, you must provide the reliable power source.*
- *The input power cable must be firmly fixed.*
- *If you have to move the wheel balancer, you must equip the protective device to avoid the damage to the machine.*

4.3 PREPARATION BEFORE INSTALLATION

4.3.1 DEMAND FOR THE ELECTRICAL WIRE

Before the install, make sure the power supply is the same as the machine demand , the wire of the machine can not connect with the power supply directly, a breaker should be used, to avoid the damage of the machine when the power is not stable, normally, a 15A breaker (with overload protect and less load cut off) is recommended, if a bigger breaker is used, the fuse should be installed, the lead wire area can not less than 1.5mm² (earth wire can 1.0mm², oil -against cable can be used, (built on stilts or insert into hose) , or monolayer insulate wire can be used through wire groove or pipeline. If the working site is not good,

much equipment, vehicle and people go through, the wire should be built on stilts or cover up.

4.3.2 DEMAND FOR THE POWER SUPPLY

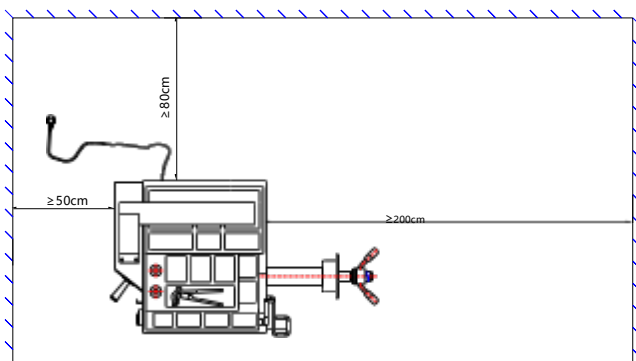
The voltage should be stable, the wire should have overload ability, fluctuate of the voltage should not exceed the rated voltage 10% , fluctuate of the frequency should not exceed 1Hz , or the regulator should be mounted, to keep the voltage and frequency stable.

4.3.3 DEMAND FOR THE SOCKET

The car balancer is equipped with the wire and plug before delivery, the operator can only choose the socket according to the plug, but the socket must apply for the following demand:

- ◇ The rated capacity should more than 500VA , rated current more than 15A;
- ◇ The socket must have reliable earth wire, the socket with only two clamp can not be used , or it will affect the precision of the balancer and ability of anti-jamming.
- ◇ it better with the switch , if there is something wrong with the wire, can cut off the electricity or it will damage the machine
- ◇ The plug should connect well with the socket.
- ◇ It is better use the special socket, do not use many equipment on the same socket.

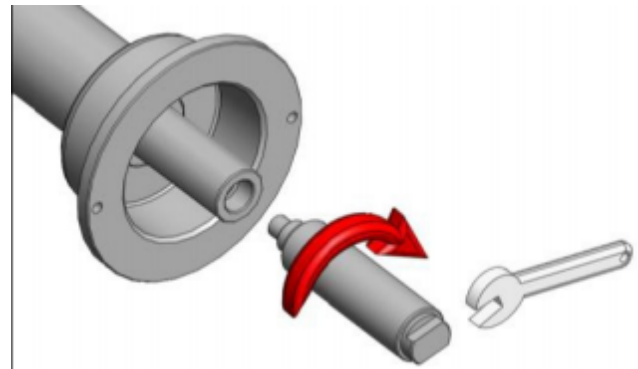
4.4 INSTALLATION AREA



The distance between the rear of the wheel balancer and the wall is more than 80cm and the distance between the left panel and the wall should be more than 50cm to secure the perfect ventilation and the limit of space to the operation and the distance between the right panel of the case and the wall should be more than 200cm to make it convenient to mount and demount the tire and mount the lift device for the tire.

4.5 MOUNTING THREAD SHAFT

Before using the machine, you should mount the thread shaft on the main shaft of the machine. Before install the thread shaft, use the cotton yarn to clean up the link between the main shaft and thread shaft and then use spanner to firmly mount the thread shaft on the main shaft by following the figure.



- When the weight of the tire exceeds 15kg , you should use the lift to carry the tire and not by hand to avoid the injury to the person.

Before operating the wheel balancer, you must use the anchor bolt to fix at 3points, or it will produce the vibration to cause the inaccuracy of the test result, especially the weight of the tire exceed 35kg.

- The machine is equipped with protective hood and the interlock switch. When the hood lower the motor will automatically start up and the motor will stop when raise the hood. Please do not remove the hood for your safety.
- The operator should wear the close-fitting work suit, it is necessary to line up a good clothing button or pull pouch hung from belt. The gloves should be the thin gloves. When operation, cannot wear the sandals and it is best to wear the insulation shoe.

- When the machine in operation, there should not be the other electronic equipments of the high-power equipments to avoid the electromagnetic interference to the machine-generated, affecting the accuracy of the test machine.
- If the light of the workplace is bad, lighting equipment shall be ready by you. The ordinary fluorescent or incandescent lighting is better, it is no need too bright, the brightness not affecting any operation is appropriate

Please pay attention to the following:

- Do not refit the wheel balancer by yourself.
- The rotating main shaft must have the protection to the bump.
- After the dynamic wheel balancer is switched off, it must be restart after 5seconds.
- Do not place too many heavy objects on the wheel balancer.
- If there is any abnormal situations such the sudden noise, smoke of any other special situation, you must pull out the power source plug immediately and notify the service person.
- There should be the enough space at the area of the plug of the wheel balancer to pull out the plug very easily.
- The wheel balancer cannot be used for the operation not specified in the manual and cannot used to execute the functions not belonging to the functions of the wheel balancer.

5. CONFIGURATION AND OPERATION

5.1 CONFIGURATION



OR



5.2 DISPLAY PANEL AND KEY BOARD PANEL



Inner unbalance value and parameters of the tyre display



Outer unbalance value and parameters of the tyre display



Positioning lamp for unbalance point.



Balance mode indicating lamp



Width setting button. Press down  or  to adjust the set width value on indicator.



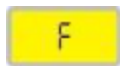
Distance setting button. Press down  or  to adjust the set distance value on indicator.



Dia setting button. Press down  or  to adjust the set Dia value on indicator.



High precision balance button. Indicator display “00” when unbalance < 5 g, press down this button to show the left unbalance value.



Button for static balance and selecting the position & mode of ALU balancing mode.



Button for automatically test the inputting value.



Button for selecting truck wheel balancing and car wheel balancing.



Button for emergency shut down



Starting button

5.3 BASIC OPERATION

5.3.1 Turn on the power switch on the left side of the detector, indicator a displays "000", and then the inner and outer unbalance indicators change to "-A-", "8.0"

5.3.2 LIFTING THE TYRE

The lifter should be used to lift the tyre, when the tyre more than 15 kg. Roll the tyre to the lifter (the tyre edge should be 10 cm from the shaft edge, avoid the damage to the shaft during the operation). Hold the tyre one hand, the other hand adjust the valve, (turn clockwise the lifter is lifting, turn anti- clockwise the lifter is down,) check the center position of the tyre, when the tyre center match to the shaft, stop the valve in the center position, push the handle to make the tyre in the shaft, not damage the shaft.

Note: after testing, demount the tyre, low the lifter to the lowest point, stop the valve in the center position

5.3.3 MOUNTING OF TYRE

Select the positioning cone that fits the central hole of the rim, to install it at the center of rotational shaft, then tighten and lock it with the handle nut.

(The maximum weight of wheel should not more than 70kg.)

5.3.4 INPUT VALUE

5.3.4.1 Input the value “A”

Pull the scale to the inner position to add the weight and

press the key  or  of  to input the A value into the display. At this moment, the display will display “A” “xxx” . And the default system is mm.

5.3.4.2 Input the value “L”

Use the L measurement scale to measure the width of rim.

Press the key  or  of  to input the L value into the display. At this moment, the display will display “L” “xxx” .

5.3.4.3 Input the value “D”

After confirming the rim diameter, press the key  or  of  to input the rim diameter into the display. At this moment, the display will display “D” “xxx” .

5.3.5 Pull down the protection cover, press the  button to start the operation; several seconds later, the detector will automatically stop.

5.3.6 When the spin ends, the display will display the inner  and outer  unbalance value of the rim. Use your hand to pull the wheel. When all the positioning lamps light inside and outside light, the weight adding position will be indicated.

5.3.7 Rotate the wheel, when the left side positioning lamp all light, at this moment, the highest position is the inner unbalance position and when the right side positioning lamp all light, at this moment, the highest position is the outer unbalance position.

5.3.9 Repeat the procedure 6- 10 till the indicators a and b show “00” .

5.3.10 Dismount the tire from the rotational shaft, the balance detection is now finished.

5.4 UNIT CONVERSION

5.4.1 The unit conversion of the L of the rim from inch to mm:

Normally, the display of L should be in inch. When you need the unit of the display to be mm, you can use the key

 and  or  of  to realize the unit conversion from inch to mm.

5.4.2 The unit conversion of the D of the rim from inch to mm:

Normally, the display of D should be in inch. When you need the unit of the display to be mm, you can use the key

 and  or  of  to realize the unit conversion from inch to mm.

After unit conversion, the unit of the display values of rim L and D are mm, but when you switch off and then on the wheel balancer, the unit will be still inch.

5.4.3 The unit conversion from gram to ounce:

Normally, the unit of the unbalance value is gram (g). If you want to make the ounce (Oz) to be the unit, you can execute the g/Oz conversion. The unit of the displayed unbalance value is gram (g). The way to realize the unit

conversion from gram to ounce is to press  and  or  of .

5.5 SELF-CALIBRATION

When there is doubt in the precision of the measured value this function can be used. Don't shut down the detector during the operation, because it may cause the inputting of the wrong value. (Don't arbitrarily use this function)

5.5.1 Mount the balanced tyre.

5.5.2 Press down the  button, don't loosen, then press the  button. The indicators  and  show “CAL” -“CAL”, the positioning lamp of unbalance will flash several seconds, and then went out automatically.



5.5.3 Press down the  button, after several seconds the detector automatically stop, the indicators  and  show "Add"-“200” . Add a balance block of 200g at any point of external side of the rim.



5.5.4 Press  button, the wheel will rotate, the indicators  and  show "End"-“CAL", the calibration is complete.



5.6 BALANCE MODE SELECTION



This lamp lighting shows that it is adapt to the type used for motorcycle, or those wheels at both sides of which placing the balance block is not allowed.



This lamp lighting shows that it is adapt to the alloy rim, at the shoulder of which the balance block can be stuck on.



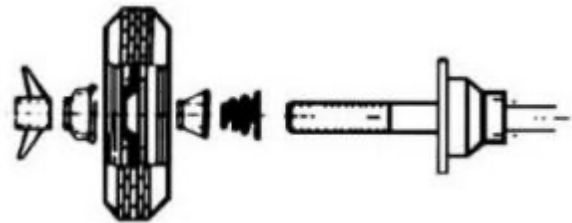
This lamp lighting shows that it is adapt to the alloy rim, on the external hidden side of which the balance block can be stuck on.



This lamp lighting shows that on the external side of which the balance block can be stuck on, and at the internal side of the rim, the balance block can be braced or inserted.

When the four sets of indicators all went out, it shows the standard balance. (Whenever you start the detector, the computer automatically set at such state.)

5.7 WHEEL SHAFT COUNTER POSITIONING



Counter positioning method is widely used in the foreign countries. It is applicable to common steel rims and aluminum alloy rims. Especially for the new rims of type 2000, and provides high balance precision.

Procedures of counter positioning:

- Place the spring with the bottom toward the balancer
- Place a suitable cone
- Place the wheel
- Plastic cup
- Quick bolt cap

5.8 PRESETTING THE STORED 3 ITEMS DATA

Note: this function can only be used when the balance data is not accurate, even after the calibration the data

still not accurate or stable. When adjust this 3 data, the 100g weight must be moved away. The calibration must be done after setting each one of the three data to make the computer memory the resetting data, or there will be no effort for this function.

Move away the weight tray, and see the original data marked on the inside of the machine for setting.

● Adjust the SFA data

After the calibration, if the 100g weight is not directly under the wheel spindle (six o'clock position) or the data is not correct, this function can be used to know the offset degree of the weight. Move this weight, and press the



and



buttons, nine seconds later the

indicators will stop flashing. Press



button

of



in turn. When all the indicators went out, press



the button, the left screen display “dis”, the right screen display the readings. It is not necessary to pay

attention to this. Press again the



button of



(at this time the button represents going into the next program) The “In-l” on left will display, the right screen

display the reading. Then press the



button of



, it will go the SFA window. The right screen display the reading of the position where the 100g weight located. If it

need to change the reading, press the



or



buttons

of



to adjust the offset degree of the 100g weight.

Then press the



of



value to exit. Do the calibration again. Sometimes it is necessary to adjust the SFA reading again and again, till the 100 weight directly under the wheel spindle.

● Adjust “dis” reading

This function used for solving the problem of inside unbalancing value.

Balance the wheel and place 100g weight on the outside of the tire, the reading on the screen will display in the range of 96- 104, take the 100g weight and place it on the inside of the tire, after stop, the reading is in the range of 96- 104, which means normal. If the reading is not between this, the operator should adjust the “dis” value, the method for finding the “dis” reading is the same as the way for finding

the SFA reading. (adjust the



and



buttons

corresponding to



button) After the adjustment go

back to the original position, then do the self-calibration again.

● Adjust the In-1 reading

This function can solve the problem of the divided reading (inside and outside). If place a 100g weight on the inside of the tire, the inside screen display 90g, the outer screen display 10, this function can be used, after the self-calibration go into the In-1 program of adjusting the stored reading. The method for finding the In- 1 reading is the same as the way for finding the SFA reading, according to the inside reading to increase or reduce the In- 1 reading

(adjust the



and



buttons corresponding to



button), if the reading more than 110g, it is necessary to reduce this item and exit, then go back to the original position and do the self-calibration.

6. SELF-DIAGNOSIS CODE



Trouble in phase generator or power board, phase board is damaged or phase connecting line is break.



Rotation speed is too low or wheel hasn't been mounted (with tire).



Too big unbalance, try other wheel



Errors in power system, rotation direction is not right.



Nonsense.



Memory damaged or signal lost, calibrate again or renovate.



The procedure of calibration is not appropriate or computer board or sensor damaged, sensor connecting line is damaged, power have no -5v.

Accessory	Description	Quantity
	PIN ACCESSORY	3 PIECE
	BR SCALE	1 PIECE
	WEIGHT	1 PIECE
	FLANGE	1 PIECE

8. TROUBLE SHOOTING AND SOLUTION

(SEE NEXT PAGE)

7. STANDARD ACCESSORIES

Accessory	Description	Quantity
	CONE	1 SET
	PLIER	1 PIECE
	QUICK NUT	1 PIECE

Symptom	Cause	Solution
No display on the screen after starting	● External power malfunction. ● Power board malfunction ● Loosen connection between computer board and power board. ● Computer plate malfunction.	● Check the external power supply ● Replace the power board. ● Check the plug of the connecting line. ● Replace the computer board.
The display is normal, but the starting switch and the inputting button heads a, L, d is malfunction	● The connection of the switch is not well. ● Dead computer.	● Open the cover and tighten the plug of the touch switch. ● Start the machine again.
The display is normal, but the brake does not work.	● Loosen connection between computer plate and power plate. ● Power plate malfunction. ● Computer plate malfunction.	● Tighten the connecting line between the computer board and the power board . ● Replace the power board . ● Replace the computer board .
The starting is slow with failure in braking and imprecision in balance.	Driving belt is too loose.	Adjust the position of the motor or change the driving belt.
The operation is normal, but the balance value is not accuracy.	● The body of machine is placed unstably. ● Affected by the cone or quick bolt cap. ● The wheel is not mounted tightly. ● The power supply inside the machine is unstable. ● Power voltage fluctuate violently. ● The calibration value changed. ● The value inside the machine changed.	● Get rid of the problem, according to the testing result. ● Re-tighten the quick bolt cap. ● Check the power supply. ● The operator can adjust the power supply by itself. ● Replace the computer board if necessary. ● Re-calibrate it according to the User's Manual. ● Input the data of dis, In-I,SFA again, according to the marks on the machine, then calibrate it again to check if the machine work normally.

Table 2

9. MAINTENANCE



Warning

The manufacturer will not bear any responsibility if the problems are caused by the application of the unoriginal spare parts and accessories.



Warning

Pull out the power plug and secure all the movable parts are locked before the execution of the adjustment and maintenance.



Warning

Do not remove or improve any part of the machine.



Caution

- Keep the working area clean.
- Never use the compressed air /water water spray to remove the dust and residual on the machine.
- Prevent the coming of the dust in the process of the operation.
- Keep the clean of the balance shaft, nut, cone and the flange. Use the brush rinsed in the neutral solution to clean these parts.
- Carefully operate the cone and flange to avoid the accident fall and the following damage. Its result is the influence on the accuracy of the centering. Place the cone and flange in the condition of dust-proof. If necessary, use the ethanol to clean.
- Make the calibration once per 6months.

LUBRICATION

The only rotating parts of the wheel balancer are the motor and the balancing shaft, so the bearing of these components must be checked periodically by the operator and greased. If the machine is used frequently (more than two hours per day), check the bearing every year; if the machine is not used so often, the check can be made every two years. The bearing cannot be opened for the test, so insert a screwdriver and check the sound produced. As the bearing acts as a clamping support, it is not easy to change or take out the grease. In addition, the rotation speed is not high for the machine, so it is not necessary to change the grease. If you notice an incorrect working or a noisy bearing, replace the bearing. If the customer confirms that the bearing has not been replaced, just change the grease, then disassemble the bearing, open the dust guard ring and add the grease (XHP103), carrying out these operations under the guidance of a professional. Calibrate the machine after replacing the bearing. If the operation has not been carried out correctly, the machine precision will be affected, so reposition the dust guard ring, reassemble the machine and repeat the adjustment.

Technical safety card for using grease in the wheel balancer.

Mobil grease XHP	103
NLGI degree	3
Type of thickener	Li-complex
Colour, appearance	Dark blue
Penetration on the processed item 25°, ASTM D 217, mm/10	235
Dropping point, °C, ASTM D 2265	280
Viscosity oil base, ASTM D 445, cSt @ 40°C	100
Change of penetration consistency, ASMT D 1831 (established upon the rolling of the greases), mm/10	10
4 spheres test, impression diam., ASTM D 2266, mm	0.5
4 spheres test, welding load, ASTM D 2509, kg	315
Test Timken OK load, ASTM D 2509, lb	45
Stability of oxidization bomb method, ASTM D 942, pressure drop at 100 hours, kPa	35
Corrosion prevention, ASTM D 1743	Passed

Corrosion prevention, ASTM D 1743	Passed
Emcor rust, IP 220, wash away with acid water	0
Rust protection, IP 220-mod, wash away with distilled water	0
Corrosion on copper, ASTM D 4048	1A
Resistance to water spray, ASTM D 4049, % spray	15
Wash away with water, ASMT D 1264, loss (weight%), @ 79°C	5

SCRAPPING

If the machine is to be scrapped, separate all electrical, electronic, plastic and ferrous components and dispose of them separately, as provided for by local regulations in force.

If the machines have the crossed-out bin symbol on their



data plate , the following disposal procedure must be applied to.

This product may contain substances that can be hazardous to the environment and to human health if it is not disposed of properly.

Electrical and electronic equipment must never be disposed of in the usual municipal waste but must be separately collected for their proper treatment.



The crossed-out bin symbol , placed on the product and on this page, reminds the user that the product must be disposed of properly at the end of its life.

Thus, the hazardous consequences that non-specific treatments of the substances contained in these products, or improper use of parts of them, may have on the environment or on human health are prevented. Furthermore, this helps to recover, recycle and reuse many of the materials contained in these products.

Electrical and electronic manufacturers and distributors set up proper collection and treatment systems for these products for this purpose.

Contact your local distributor to obtain information on the collection procedures at the end of the life of your product.

When purchasing this product, your distributor will also inform you of the possibility to return another end-of-life piece of equipment free of charge as long as it is of equivalent type and had the same functions as the purchased product.

Any disposal of the product performed in a different way from that described above will be liable to the penalties provided for by the national regulations in force in the country where the product is disposed of.

Further measures for environmental protection are recommended: recycling of the internal and external packaging of the product and proper disposal of used batteries (only if contained in the product).

Your help is crucial to reduce the amount of natural resources used for manufacturing electrical and electronic equipment, minimize the use of landfill for product disposal and improve the quality of life, preventing potentially hazardous substances from being released in the environment.

FIREFIGHTING MEANS TO BE USED

Consult the following table to choose the most suitable fire extinguisher.

Dry materials		Flammable liquids		Electrical equipment	
Water	YES	Water	NO	Water	NO
Foam	YES	Powder	YES	Foam	NO
Powder	YES*	Powder	YES	Powder	YES
CO2	YES*	CO2	YES	CO2	YES
YES* Use only if more appropriate extinguishers are not at hand or when the fire is small.					



Warning

This table contains general instructions to be used as guidelines for users. All the applications of each type of extinguisher must be obtained from the relevant manufacturer.